to me an equally definite, natural and peculiar family, to which I gave the name of *Placodermi*; and if any palæontologist can give any reasons against this course, I for one should feel grateful for the information.

I have the honour to remain, Gentlemen, Your most obedient servant,

FREDERICK M'COY.

17 Osborne Terrace, Cambridge.

## PROCEEDINGS OF LEARNED SOCIETIES.

### ZOOLOGICAL SOCIETY.

Nov. 23, 1847.-Wm. Yarrell, Esq., Vice-President, in the Chair.

The following papers were read :---

1. Descriptions of some new species of Australian Birds. By John Gould, Esq., F.R.S., F.Z.S. etc.

MELITHREPTUS CHLOROPSIS.

Upper surface greenish olive; head and chin black; crescentshaped mark at the occiput, and under surface, white; wings and tail brown, margined with greenish olive; apical half of the external webs of the primaries narrowly edged with white; irides dull red; bill blackish brown; naked space above the eye greenish white in some, in others pale wine-yellow; tarsi and outer part of the feet light greenish olive; inside of feet bright yellow.

Total length  $5\frac{1}{4}$  inches; bill  $\frac{11}{16}$ ; wing  $3\frac{1}{4}$ ; tail  $2\frac{5}{8}$ ; tarsi  $\frac{3}{4}$ . Hab. Western Australia.

*Remark.*—Allied to *M. lunulatus*, from which it differs in being of a larger size, and in having the bare space over the eye pale green instead of red.

MELITHREPTUS ALBOGULARIS.

Upper surface greenish wax-yellow; head black; crescent-shaped mark at the occiput, chin, and all the under surface, white; wings and tail brown, margined with greenish wax-yellow; irides dull red; bill brownish black; legs and feet greenish grey, with a tinge of blue on the front of the tarsi.

Total length  $4\frac{5}{8}$  inches; bill  $\frac{5}{8}$ ; wing  $2\frac{7}{8}$ ; tail  $2\frac{1}{4}$ ; tarsi  $\frac{11}{16}$ .

Hab. Northern and Eastern Australia.

Remark.—Rather smaller than M. lunulatus, from which it differs in the brighter colouring of the back and in the total absence of any black on the chin.

GRUS AUSTRALASIANUS.

The general plumage deep silvery grey; the feathers of the back dark brownish grey, with silvery grey edges; lesser wing-coverts dark brown; primaries black; crown of the head and bill olive-green, the bill becoming lighter towards the tip; irides fine orange-yellow; raised fleshy papillæ surrounding the ears and the back of the head

### $\mathbf{280}$

fine coral-red, passing into an orange tint above and below the eye, and becoming less brilliant on the sides of the face, which, together with the gular pouch, is covered with fine black hairs, so closely set on the latter as almost to conceal the red colouring of the skin; upper part of the pouch and the bare skin beneath the lower mandible olive-green; in old males the gular pouch is very pendulous, and forms a conspicuous appendage; legs and feet purplish black.

Total length 48 inches; bill  $6\frac{1}{4}$ ; wing 24; tail  $9\frac{1}{2}$ ; tarsi  $10\frac{1}{2}$ .

Hab. Australia generally.

*Remark.*—A very noble species, which has hitherto been confounded with the *Grus Antigone* of India, to which it is nearly allied, but from which it differs in being somewhat smaller in size and in the black colouring of the legs.

#### Myïagra concinna.

The male has the whole of the upper surface, wings, tail, and breast, lead-colour, glossed with green on the head, neck and breast, and becoming gradually paler towards the extremity of the body and on the wings and tail; primaries slaty black; secondaries faintly margined with white; under surface of the wing, abdomen and under tail-coverts white; bill leaden blue, except at the extreme tip, which is black; irides brown; feet blackish grey.

The female has the head and back lead-colour, without the greenish gloss; wings and tail brown, fringed with bluish grey, particularly the secondaries; throat and breast rich rusty red; abdomen and under tail-coverts white, which colour does not gradually blend with the rusty red of the breast, as in the female of *Myïagra plumbea*; upper mandible black; under mandible pale blue, except at the tip, which is black.

Total length  $5\frac{1}{4}$  inches; bill  $\frac{1}{2}$ ; wing 3; tail  $2\frac{3}{4}$ ; tarsi  $\frac{5}{8}$ . *Hab.* North-western Australia.

Remark.—Closely allied to M. plumbea and M. nitida.

#### HERODIAS PLUMIFERUS.

The entire plumage pure white; bill and orbits yellow.

Total length 24 inches; bill 4; wing 11; tail  $4\frac{1}{2}$ ; tarsi  $4\frac{1}{4}$ . Hab. New South Wales.

*Remark.*—This species is distinguished by the greater development of the plumes depending from the chest, and by their structure assimilating very closely to those of the back.

#### HERODIAS PANNOSUS.

The entire plumage bluish or slaty black, with the exception of the chin, which is pure white.

Total length 24 inches; bill  $4\frac{1}{4}$ ; wing  $10\frac{1}{2}$ ; tail 4; tarsi  $4\frac{1}{4}$ .

Hab. Port Stephens, New South Wales.

*Remark.*—The deep leaden blue colouring of this species renders it a very conspicuous bird.

#### ARDETTA STAGNATILIS.

Crown of the head, occipital crest and a small tuft beneath each eye black; neck and all the under surface grey, with a vinous tinge, which becomes much deeper on the abdomen and under tail-coverts; lengthened feathers of the back bluish grey, with lighter shafts; wing-coverts dark slate-grey, narrowly margined with buff and white; remainder of the wings and tail dark grey; irides light yellow; orbits and eyelash gamboge-yellow; upper mandible and cutting edge of the lower mandible very dark reddish brown; remainder of the lower mandible oil-green; tibiæ and hinder part of the tarsi bright yellow; remainder of the legs and feet yellowish brown.

Total length 14 inches; bill  $3\frac{1}{2}$ ; wing  $7\frac{1}{2}$ ; tail  $2\frac{3}{4}$ ; tarsi  $2\frac{1}{4}$ .

The young differ in having all the upper surface brown, with a triangular spot of white at the tip of all the wing-feathers, and the throat broadly and conspicuously striated with brown on a white ground.

Hab. Port Essington.

ACTITIS EMPUSA.

All the upper surface pale glossy or bronzy brown, each feather crossed with irregular bars of dark brown, bounded on either side by a narrow line of paler brown; wings dark brown; base and tips of the secondaries white; primaries very slightly tipped with white; central tail-feathers pale glossy or bronzy brown, with a row of irregular-shaped spots of dark brown along the margins; lateral feathers white, crossed by irregular blended bars of dark and pale brown; under surface white, with the exception of the sides of the chest, which are pale brown, and the shafts of the feathers of the front of the neck, which are also pale brown.

Total length  $6\frac{1}{4}$  inches; bill  $1\frac{1}{8}$ ; wing  $4\frac{1}{8}$ ; tail  $2\frac{1}{4}$ ; tarsi 1. Hab. Port Essington.

Remark.—Closely allied to, but smaller than, Actitis hypoleucus.

STERNA GRACILIS.

Crown of the head and back of the neck rich deep black; all the upper surface, wings and tail silvery grey; sides of the neck and all the under surface white, with a blush of rose-colour on the breast and centre of the abdomen; shafts of the primaries white, their outer webs slaty black, and a narrow stripe of dark slate-colour along the inner web close to the stem; irides brownish red; bill red; feet orange-red, nails black.

Total length  $12\frac{1}{2}$  inches; bill 2; wing  $8\frac{1}{2}$ ; tail 6; tarsi  $\frac{3}{4}$ .

Hab. The Houtmann's Abrolhos, off the western coast of Australia. Remark.—A very elegant species, closely allied to Sterna Dougallii of the British Islands.

2. SHORT DESCRIPTIONS OF NEW OR LITTLE-KNOWN DECAPOD CRUS-TACEA. BY ADAM WHITE, F.L.S., ASSISTANT IN THE ZOOL. DEP. BRITISH MUSEUM.

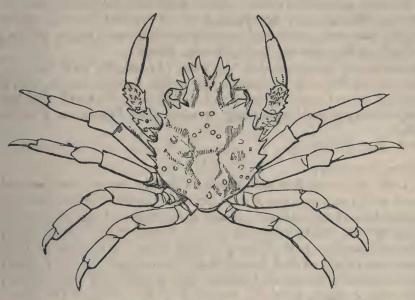
### Family MAIADÆ.

#### SCHIZOPHRYS, White.

Carapace oval, depressed, somewhat attenuated behind; beak deeply cloven; upper orbit deeply cloven, with a strong tooth in the

middle of the cleft; under orbit with an elongated appendage on the inside, with two teeth at the end.

Tail of male with seven joints, the sides nearly parallel. Fore-legs shortest. Fingers without teeth.



Schizophrys serratus (twice the natural size).

SCHIZOPHRYS SERRATUS, White, List of Specimens of Crustacea in the Collection of the British Museum, p. 9.

Two basal joints of fore-legs with numerous pointed tubercles; sides of carapace with six strongish teeth, including outer tooth of orbit. The two strong teeth of the front with a tooth each on the outside.

Hab. Isle of France (male). Coll. Brit. Museum.

SCHIZOPHRYS SPINIGER, White, l. c. 9.

Basal joints of fore-legs smooth ; sides of carapace with eight teeth on each, the second and third from the orbit united at the base ; behind, in the middle and close to each other, are two small teeth. Carapace above with numerous minute tubercles, amongst which are nineteen of larger size, arranged mostly transversely. The carapace is yellow, tinged here and there.

Hab. Philippine Islands (Siquejor and Isle of Rohol). Coll. Brit. Museum. From Mr. Cuming's collection.

HUENIA FRONTALIS, White, l. c. 10.

Carapace with the front very wide and semicircular in front; sides of carapace behind eyes narrower than a line measured across; a slight sinus in the side behind. Legs flat and foliaceous.

Locality unknown. Coll. Brit. Museum.

HUENIA DEHAANII, White, l. c. 10.

Carapace elongated, depressed ; beak compressed ; sides hairy, with a tooth at base directed forwards ; carapace behind eyes with the sides nearly parallel, the end straight; sides with two wide, bluntish, somewhat falcated appendages directed backwards, separated by a roundish sinuation.

Hab. Philippine Islands. Coll. Brit. Museum. From Mr. Cuming's collection.

MENŒTHIUS PORCELLUS, White, l. c.

Upper part of carapace very irregular all over; the front, with three teeth arising from the same, plain; the middle one very much elongated and bent down at the end; the side margin with several largish crenations; base of fore-legs with two or three tubercles on the outside.

Blastia monoceros, Leach MSS.

Hab. Isle of France (male and female).

## Family CANCERIDÆ.

Genus Actæa, De Haan.

ACTÆA NODULOSA, White, l. c. 15.

Carapace and legs above thickly covered with rounded tubercles, largest on fore-legs and on fore-margins; a tubercle on the under orbit; the carapace in the middle longitudinally impressed; the posterior edge is straight and furnished with two transverse lines of small tubercles; claws, both upper and under, with longitudinal keels, horn-coloured.

Hab. Isle of France. Coll. Brit. Museum.

ACTÆA CARCHARIAS, White, l. c. 15.

Carapace and legs above covered very closely with sharp rough tubercles; on the front the tubercles are much smaller, the upper surface divided into different divisions by transverse and longitudinal lines; upper edge of legs serrated.

Hab. Australia (Swan River).

'This species is nearly allied to Actæa calculosa (Cancer calculosus, Edw. Crust. i. 378).

#### ATERGATIS, De Haan.

ATERGATIS SINUATIFRONS, White, l. c. 14.

Carapace with the marginal limb very entire and rather thick, of a uniform brownish red. Front with three lobes, each notched in the middle. Fingers of fore-legs with tufts of hair, black, extreme tip white. Width of carapace four inches.

Hab. Mauritius. Coll. British Museum. Presented by Lady Frances Cole.

ATERGATIS SUBDIVISUS, White, l. c. 14.

Carapace with the marginal limb divided by four very indistinct lobes; greater part of top of carapace deep red, with yellowish spots; behind paler. Fingers black, base of moveable finger yellow. Front of carapace with two straightish lobes, sinuated close to the eye. Width of carapace three inches eight lines.

Hab. Philippine Islands. From Mr. Cuming's collection. Near A. marginatus. ATERGATIS ASPERIMANUS, White, l. c. 14.

Carapace with its latero-anterior sides with a cutting edge, part of carapace behind this punctate; the rest of upper surface almost quite smooth, with three or four impressed lines in front. Hands rugose, especially above; fingers both moveable and fixed, deeply channeled. Pale yellowish red; feet darker; fingers of fore-legs pale horncoloured.

Hab. Philippine Islands. Coll. Brit. Museum. From Mr. Cuming's collection.

ATERGATIS LATERALIS, White, l. c. 15.

Carapace with each of the sides having three projecting teeth; hands with a crest above and below; fingers short, pale brown; hands roughish on the outside.

Hab. Unknown. In collection of Brit. Museum.

#### XANTHO, Auct.

XANTHO DEPRESSUS, White, l. c. p. 17.

Carapace much-depressed, very flat, in front tuberculated; many of the tubercles sharp-pointed. Front deeply notched in the middle; sides with three teeth. Hands on the outside tuberculated, three last joints of legs slightly tuberculated and with a few hairs.

Hab. Philippine Islands (Isle of Corregidor). From Mr. Cuming's collection.

This is quite a magazine genus in the family Canceridac; it requires subdivision greatly.

XANTHO DENTICULATUS, White, l. c.

Carapace with the latero-anterior edge long, and arched with eight sharp teeth on each side, largest behind. Front of carapace between the orbits separated into four parts by five longitudinal lines; two transverse lines about the middle. Hands on the outside smooth, above with a bluntish edge, punctured on each side.

Hab. West Indies. Brit. Museum. From Mr. Scrivener's collection.

XANTHO CULTRIMANUS, White, l. c. 17.

Carapace slightly convex above; front notched; sides with four teeth; front part and sides with very slight tubercles; carapace behind the eyes with impressed lines, which meet in the middle. Hands with four longitudinal impressed lines on the outside, which is covered with small roughish tubercles. Carapace and legs pale yellowish, varied with red.

Hab. Philippine Islands. Coll. Brit. Museum. Mr. Cuming's collection.

XANTHO LAMELLIGERA, White, l. c. 17.

Carapace rather convex above, with four teeth on each side; upper part on sides slightly tubercular. Hands rough on the outside; edge of wrist above with a toothed margin; edge of hands, both above and below, with a lamellar edge. Hind-legs on the upper edge lamellar.

Hab. Isle of France. Coll. Brit. Museum.

## CHLORODIUS, Auct.

CHLORODIUS HIRTIPES, White, l. c. 18.

Carapace smooth; front very broad, scarcely notched in the middle; the sides with four blunt teeth. Fore-legs long; third joint very thick; upper edge at base with one thick tooth; hind-legs with many brownish hairs.

Hab. Philippine Islands. Coll. Brit. Museum. From Mr. Cuming's collection.

CHLORODIUS FRAGIFER, White, l. c. 18.

Carapace covered with roundish berry-like tubercles, arranged in groups and separated by definite impressed lines. Pedicel of eye with two spines close to the eye; legs covered with rice-like tubercles. White, a broad pinkish longitudinal line down the middle in front; five pink marks on hind part of carapace.

Hab. Philippine Islands (Rohol). Coll. Brit. Museum. From Mr. Cuming's collection.

CHLORODIUS PILUMNOIDES, White, l. c. 18.

Carapace and legs covered with brown hairs; carapace somewhat depressed, sides with three teeth covered with spines; fore-part of carapace with several bosses, and rough with spiny tubercles; on hind-part of carapace are four transverse raised lines, the innermost the shortest. Hands large, upper edge serrated, outside and top with largish tubercles. Fingers on the outside and top channeled; several tubercles at the base of the moveable finger; fingers black, hollowed ends white. Hind-legs serrated above, second and third joints with three rows of serratures.

Hab. Singapore. Philippine Islands (Rohol). Coll. Brit. Museum. From Mr. Cuming's collection.

PANOPEUS, Edwards.

PANOPEUS DENTATUS, White, l. c. 18.

Carapace having the sides furnished with five lobes, the first three blunt and wide, the last two sharp and narrow; front with four lobes, the two middle largest; fore-part of carapace above, round the edge, depressed and irregularly tuberculated, most of the tubercles very small. Hands very unequal in size, the right largest fingers thick, the left small, the fingers much elongated. Upper part red, with many irregular yellow marks.

Hab. Philippine Islands (Masbata). Coll. Brit. Museum. From Mr. Cuming's collection.

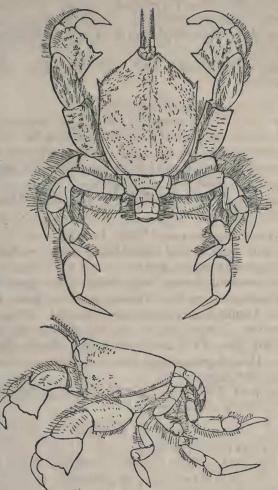
## Ozius, Edwards.

Ozius? subversucosus, White, l. c. 19.

Carapace with latero-anterior side short, with three deep incisions forming four lobes, the two middle truncated; carapace above irregular, the edges and under-side thickly covered with small warts. Front formed of two truncated widish lobes, separated by a very slight notch; a deepish notch between the front and the orbit, and a sinus between the outer orbital angle and the first lobe of the side.

Hab. — ?

Family HIPPIDÆ. Cosmonotus, Adams and White.



COSMONOTUS GRAVII, Adams and White, List of Crustacea, p. 129. Carapace oval (about an inch in length and half an inch wide), very much compressed laterally, especially in front, with a distinct prominent keel extending down the middle line, very strongly marked in front, but fainter posteriorly; the surface covered with numerous minute depressed punctures.

Front with two very small spines on each side of a deep angular notch, in which are placed the eyes.

Chelæ trigonal, the inferior part plane, the exterior convex, with transverse, interrupted, engraved or depressed lines, the upper angle covered with long thick hairs; the inner surface concave. Carpus incurved, subcompressed, convex externally, but less convex internally, and ending above and in front in a blunt spine; hand compressed, elevated, with the upper edge arched, but not so sharp as in *Notopus*; the sides convex and covered with asperities or minutely denticulated ridges, interrupted and transverse; finger uncinate, very

short, incurved; thumb narrow, compressed, elongated, with a sharp apex and a strong tooth near the distal extremity.

Feet short and weak, as in *Notopus*; the first tibia bicarinated; the tarsus subquadrate, anteriorly bicarinate, with a scalpel-shaped claw; the second tibia one-keeled, with the tarsus oblong, and a sharp elongated trigonal claw; the third tibia subtriangular; tarsus short, flattened, subtrigonal, with a falcate claw; fifth tibia triangular, very short, flattened; tarsus transverse-ovate, with a small narrow claw.

Abdomen of the male seven-jointed, the joints from the first to the sixth nearly of the same width as in *Notopus*, and the last joint trigonal.

Cosmonotus differs from Notopus, De Haan, by wanting the postfrontal, elevated, denticulated ridge; by the dorsal keel ending abruptly in front, instead of terminating in a central frontal spine; in the front being notched with a single small spine on each side; in the thorax being much compressed, more especially in front, and in the produced and angular shape, while in Notopus it is almost straight across in front; and in the sides being entire, with a short sharp spine at the antero-latero angle.

The cut represents this species of twice the natural size, and is named in compliment to J. E. Gray, Esq., F.R.S., Keeper of the Zoological Department in the British Museum.

December 12.—W. Spence, Esq., F.R.S., in the Chair.

The following paper was read :---

- DESCRIPTIONS OF NINETEEN NEW SPECIES OF HELICEA, FROM THE Collection of H. Cuming, Esq. By Dr. L. Pfeiffer.
  - 1. HELIX KURRI, Pfr. Hel. testá mediocriter umbilicatá, depressá, tenui, punctis distantibus sub lente scabriusculá, diaphaná, corneoalbidá, fasciá 1 angustá rufá, alterá obsoletá infra peripheriam ornatá; spirá planá; anfractibus 4<sup>1</sup>/<sub>3</sub>, primis convexiusculis, ultimo sensim descendente, utrinque subplano, anticè subconstricto; aperturá obliquá, subtriangulari-lunari; peristomate simplice, tenui, marginibus conniventibus, supero latè expanso, basali reflexo, columellari brevi, triangulatim dilatato.

Diam. 25, alt. 10 mill.

Locality unknown.

2. HELIX GARDENERI, Pfr. Hel. testá subperforatá, turbinatá, solidá, striis longitudinalibus et spiralibus distantioribus decussatá, nitidá, castaneá; spirá elevatá, acutiusculá; anfractibus  $6\frac{1}{2}$  convexiusculis, ultimo majore, sublævigato, ad peripheriam cingulo albo ornato; aperturá obliquè lunari, intus albâ; peristomate simplice, recto, margine columellari subincrassato, supernè subdilatato, perforationem ferè claudente.

Diam. 22, alt. 15 mill.

Found on leaves of trees in the forests of Ceylon, 8000 feet above the level of the sea (Dr. Gardener).

3. STREPTAXIS FUNCKI, Pfr. Str. testá subobtecté umbilicatá, de-

## 288

presso-ovată, tenuiusculă, supernè confertim plicată, basi lævigată, sub epidermide tenui, corneo-albidă; spiră regulariter parùm elată, apice obtusiusculă; anfractibus  $6\frac{1}{2}$  vix convexiusculis, ultimo deorsum deviante, prope suturam striatulo, basi convexo, juxta umbilicum mediocrem compresso; apertură obliquă, subtriangulari; peristomate breviter expanso, margine basali leviter arcuato, columellari in laminam triangularem, fornicatim supra umbilicum reflexam, dilatato.

Diam.  $27\frac{1}{2}$ , alt. 16 mill.

From Merida, New Granada (Funck).

4. BULIMUS QUADRICOLOR, Pfr. Bul. testá imperforatá, succineiformi, tenui, striatulá, luteá, strigis obliquis fulguratis confertis castaneis, nonnullisque latioribus stramineis, antrorsum serratis, infra medium evanescentibus pictá; spirá conicá, obtusiusculá; anfractibus 4 subplanis, ultimo parúm convexo, 2—3 longitudinis subæquante; columellá filari; peristomate undique brevissime expanso, roseo, marginibus callo tenuissimo junctis.

Long.  $30\frac{1}{2}$ , diam. 14 mill.

From Chachopo, province of Merida, New Granada (Funck).

5. BULIMUS LOVÉNI, Pfr. Bul. testá imperforatá, ovatá, tenui, longitudinaliter plicatá, fusco-luteá, strigis castaneis fulguratis elegantissimè pictá; spirá conicá, obtusá, apice subimpressá; anfractibus 4½ vix convexiusculis, supremis castaneis, penultimo inter plicas subtilissimè transversim striato, ultimo subtiliter malleato, 4—7 longitudinis æquante; columellá castaneá, supernè leviter plicatá; aperturá oblongo-ovali, subconcolore; peristomate nigrocastaneo, undique expanso et reflexo, margine columellari supernè dilatato, appresso.

Long. 42, diam. 20 mill.

From the Colonia of Tovar, Venezuela (Mr. D. Dyson).

6. BULIMUS LAMARCKIANUS, Pfr. Bul. testâ subperforată, ovată, solidă, striată et undique distincte granulată, saturate fuscă, punctis nigricantibus conspersă; spiră brevi, obtusiusculă; anfractibus 5 parum convexis, ultimo ventrosiore, 3—5 longitudinis subæquante; columellă oblique leviter plicată; apertură oblongoovali, intus lividă; peristomate subincrassato, expanso-reflexo, marginibus callo tenui junctis, columellari superne dilatato, perforationem fere occultante.

Long. 62, diam. 32 mill.

From the Andes of New Granada, 8000 feet high (Funck).

7. BULIMUS BLAINVILLEANUS, Pfr. Bul. testâ subperforată, solidă, ventroso-ovată, longitudinaliter confertim plicată, sub epidermide olivacea castanea, strigis sparsis nigricantibus fulguratis variegată; spiră brevi, conică, acutiusculă; anfractibus 4½, supremis planis, penultimo convexiusculo, ultimo ventroso, 3—5 longitudinis subæquante, perobliquè descendente; columellă mediocriter plicată, paulo recedente; apertură oblongo-semiovali, intus nigricante, nitidă; peristomate nigro, incrassato, late expanso, marginibus callo tenuissimo junctis, columellari dilatato, plano, subappresso.
Long. 50, diam. 25 mill.

From Zaji, province of Merida, New Granada (Funck). Ann. & Mag. N. Hist. Ser. 2. Vol. ii. 20 8. BULIMUS PLECTOSTYLUS, Pfr. Bul. testá subperforatá, ovatoconicá, solidá, regulariter et distinctè granulatá, saturatè castaneá, flammis brevibus albis infra suturam ornatá; spirá conicá, obtusiusculá; anfractibus 5 vix convexiusculis, superioribus plicatostriatis, ultimo tumido, anticè perobliquè descendente, 4—7 longitudinis subæquante; columellá supernè plicá validá, subobliquá, munitá; aperturá obversè auriformi, intus sordide lilaceá, nitidá; peristomate undique expanso et reflexo, livido-fusco.

Long. 35, diam. 17 mill.

From Chachopo, province of Merida, New Granada (Funck).

9. BULIMUS VERANYI, Pfr. Bul. testá subperforatá, ovatá, solidiusculá, minutissimè granulatá, fulvá, punctis castaneis conspersá et strigis luteis vel albis fulguratis distantibus ornatá; spirá conicá, obtusiusculá; anfractibus 4½ convexiusculis, ultimo 3—5 longitudinis æquante; columellá supernè subplicatá, leviter arcuatá; aperturá oblongo-ovali, intus margaritaceá; peristomate albo, undique mediocriter expanso.

Long. 33, diam. 15 mill.

From Chachopo, province of Merida, New Granada (Funck).

10. BULIMUS PERDIX, Pfr. Bul. testá perforatá, ovato-oblongá, solidá, confertim striatá, albidá, flammis, maculis et punctis nigricantibus pictá; spirá conicá, apice obtusiusculá; suturá marginatá; anfractibus  $5\frac{1}{2}$  vix convexis, ultimo spiram subæquante, basi juxta perforationem angustam vix compresso; columellá supernè obliquè plicatá, leviter arcuatá; aperturá oblongá, intus concolore; peristomate undique expanso, margine columellari subfornicato.

Long. 36, diam. 15 mill.

From Agua de Obispo, New Granada (Funck).

 BULIMUS QUITENSIS, Pfr. Bul. testá umbilicatá, ovato-conicâ, solidulá, ruguloso-striatá, pallidè fuscescente, strigis variis fuscis et castaneis variegatá; spirá conicá, acutá; anfractibus 7 planiusculis, ultimo convexo, spiram vix superante, basi juxta umbilicum angustum, apertum compresso, nigricante; columellá rectá, verticali, nigricante; aperturá oblongá, ad basin columellæ subangulatá, intus nigricanti-limbatá; peristomate simplice, recto, marginibus subparallelis, dextro supernè repando, columellari dilatato, patente. Long. 26, diam. 12 mill.

From Quito (De Lattre).

12. BULIMUS IRREGULARIS, Pfr. Bul. testă umbilicată, ovutooblongă, solidulă, plicis confertis, longitudinalibus rugosă, carned, fusculo substrigatim variegată; spiră conică, acutiusculă, apice rufă; anfractibus 6 vix convexiusculis, ultimo spiră vix breviore, circa umbilicum angustum, non pervium subangulato-compresso; columellă leviter arcuată; apertură elliptică, basi subangulată; peristomate simplice, recto, margine columellari e basi reflexo, superne dilatato.

Long. 19, diam. 9 mill.

From Quito, Equador (De Lattre).

1 . BULIMUS MERIDIONALIS, Pfr. Bul. testa perforata, ovato-conica, striatula, diaphana, albida, fascia 1 aurantio-fusca cingulata; spira regulariter conica, acutiusculà; anfractibus 7 convexiusculis, ultimo spira breviore, subrotundato; columella leviter arcuata; apertura obliqua, truncato-ovali, intus concolore; peristomate simplice, breviter expanso, margine columellari supernè fornicatoreflexo.

Long. 15, diam. 8 mill. From South Africa.

14. BULIMUS PELLUCIDUS, Pfr. Bul. testá subperforatá, turritá, tenuissimá, striatulá, nitidá, pellucidá, lutescenti-corned; spirá elongatá, apice obtusá; anfractibus 7 convexiusculis, ultimo 1—3 longitudinis æquante; columellá subtortá; aperturá subquadrangulari-ovali; peristomate simplice, acuto, margine columellari breviter revoluto.

Long.  $11\frac{1}{2}$ , diam. 4 mill. (spec. max.). From Merida, New Granada (Funck).

15. BULIMUS GRANADENSIS, Pfr. Bul. testa anguste perforata, fusiformi-ovata, tenui, irregulariter striata, albida, strigis vitellinis et maculis longitudinalibus nigricantibus seriatis ornata; spira conica, acutiuscula; anfractibus 6 vix convexiusculis, ultimo spiram æquante; columella recta; apertura ovali-oblonga, intus concolore; peristomate acuto, simplice, vix expansiusculo, margine columellari in laminam triangularem tenuem reflexo, perforationem fere occultante.

Long. 26, diam. 11 mill. From Merida, New Granada (Funck).

16. ACHAŢINELLA MIGHELSIANA, Pfr. Ach. testā ovato-coniformi, lævigatā, opacā, nitidā, niveā, strigis cinereis variegatā; spirā conicā, apice acutiusculā; suturā submarginatā; anfractibus 5½ convexis, ultimo infra medium lineā nigricante (interdum duplicatā) cincto; plicā columellari validā, dentiformi, basi castaneā; aperturā semiovali, fusco-marginatā; peristomate simplice, acuto.

Long. 17, diam. 8 mill.

From Molokai, Sandwich Islands.

17. ACHATINA MAGNIFICA, Pfr. Ach. testá ovato-subfusiformi, tenuiusculá, leviter striatulá, haud nitente, luteá, strigis et flammis virentibus et castaneis, fasciáque l luteo et castaneo articulatá, supramedianá variegatá; spirá conicá, apice obtusissimá; anfractibus  $5\frac{1}{2}$  vix convexiusculis, ultimo spiram paulò superante; suturá angustè marginatá; columellá rectá, verticali, callo introrsum albo, extrorsum nigricante indutá, basi rubrá, ad basin aperturæ ellipticæ, intus cærulescenti-albidæ obliquè truncatá.

Long. 47, diam. 21 mill.

From Quito, Equador; in woods (De Lattre).

 ACHATINA FUNCKI, Pfr. Ach. testa subperforata, ovato-conica, tenui, striatula, nitida, pellucida, stramineo-hyalina; spira conica, 20\*

## Miscellaneous.

acută; anfractibus 6 convexis, ultimo spiră pauld breviore; apertură semiovali; pariete aperturali medio plică lævi, intrante munito; columellâ medio lamellatim truncată; peristomate simplice, acuto.

Long.  $12\frac{1}{2}$ , diam. 6 mill.

From the province of Merida, New Granada (Funck).

19. BALEA FUNCKI, Pfr. Bal. testá sinistrorsá, vix subrimatá, turritá, truncatá, sublævigatá, fuscá; anfractibus (spec. trunc.) 5 convexiusculis, ultimo basi rotundato; aperturá oblongo-semiovuli, intus fulvá; plicá parietali validá, compressá, columellari obliquá, obsoletá; peristomate albo, expanso, reflexiusculo, marginibus callo junctis, externo sinuato.

Long. (spec. trunc.) 14, diam. 4 mill.

From Chachopo, province of Merida, New Granada (Funck).

## MISCELLANEOUS.

On the Red Corpuscles of the Blood of the Mud-fish (Lepidosiren annectens). By ANDREW SMITH, M.D., Deputy Inspector-General of Hospitals, and GEORGE GULLIVER, F.R.S., Surgeon in the Royal Horse Guards.

IN the uncertainty as to whether the *Lepidosiren* is to be classed among Reptiles or Fishes, it is interesting to examine the characters of its blood-discs; and Dr. Andrew Smith having procured some dried specimens of its blood, we have examined them together, and the following are short notes of the results : —

In shape and structure these blood-corpuscles are the same as those of the naked amphibia, and in size range between the bloodcorpuscles of the *Siren* and of the *Triton*. The long diameter of these blood-corpuscles of the *Lepidosiren* is  $\frac{1}{570}$ th, and the short diameter  $\frac{1}{941}$ st of an inch, and the nuclei are  $\frac{1}{1455}$ th long and  $\frac{1}{2900}$ th broad : these are the average sizes in vulgar fractions of an English inch.

Now no blood-corpuscles, so far as we know, of any fish, are so large as these of the *Lepidosiren*; while this great size is characteristic of the blood-corpuscles of some of the amphibious reptiles, as was long ago described by Professor Wagner, and may be seen, for comparison, in Mr. Gulliver's measurements of the blood-corpuscles of the *Proteus*, *Siren*, and *Triton*, in his Notes to the edition of Hewson's works printed for the Sydenham Society, and in the Proceedings of the Zoological Society, February 1848, p. 38.

## FILAGO APICULATA, G. E. Smith.

The Rev. G. E. Smith discovered in Yorkshire a plant to which he gave the above name (Phytol. ii. 575), considering it a distinct species from F. germanica (Linn.). Although favoured with specimens by him, I was unable to satisfy myself of its just claims to specific rank. Recently (July 28) I had the pleasure of gathering it near Thetford, close to the station on Redneck Heath of Apera in-